

# **2nd Annual ADL Science & Technology Workshop**

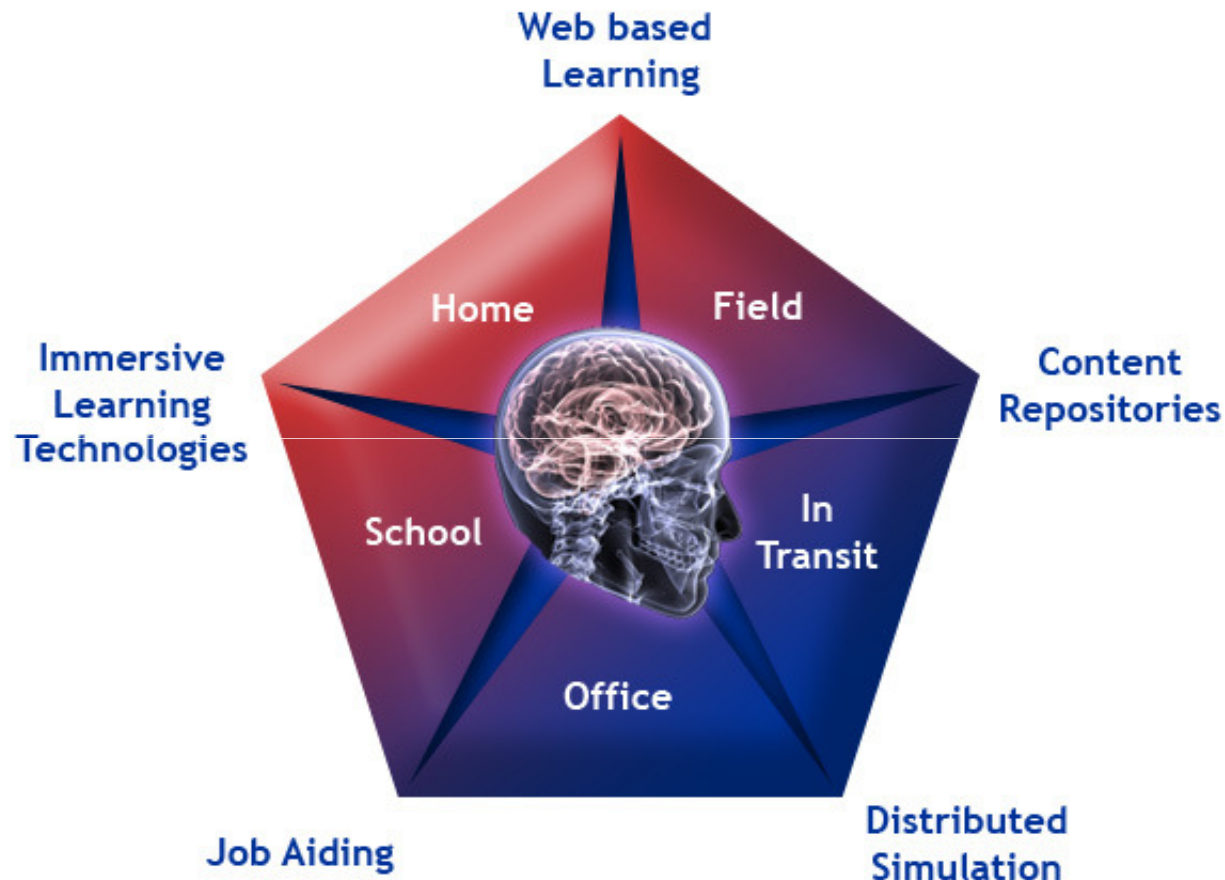
Focus on Mobile Learning  
for the Military

**Dr. Kristy Murray**  
Director, ADL Co-Labs  
*May 2010*

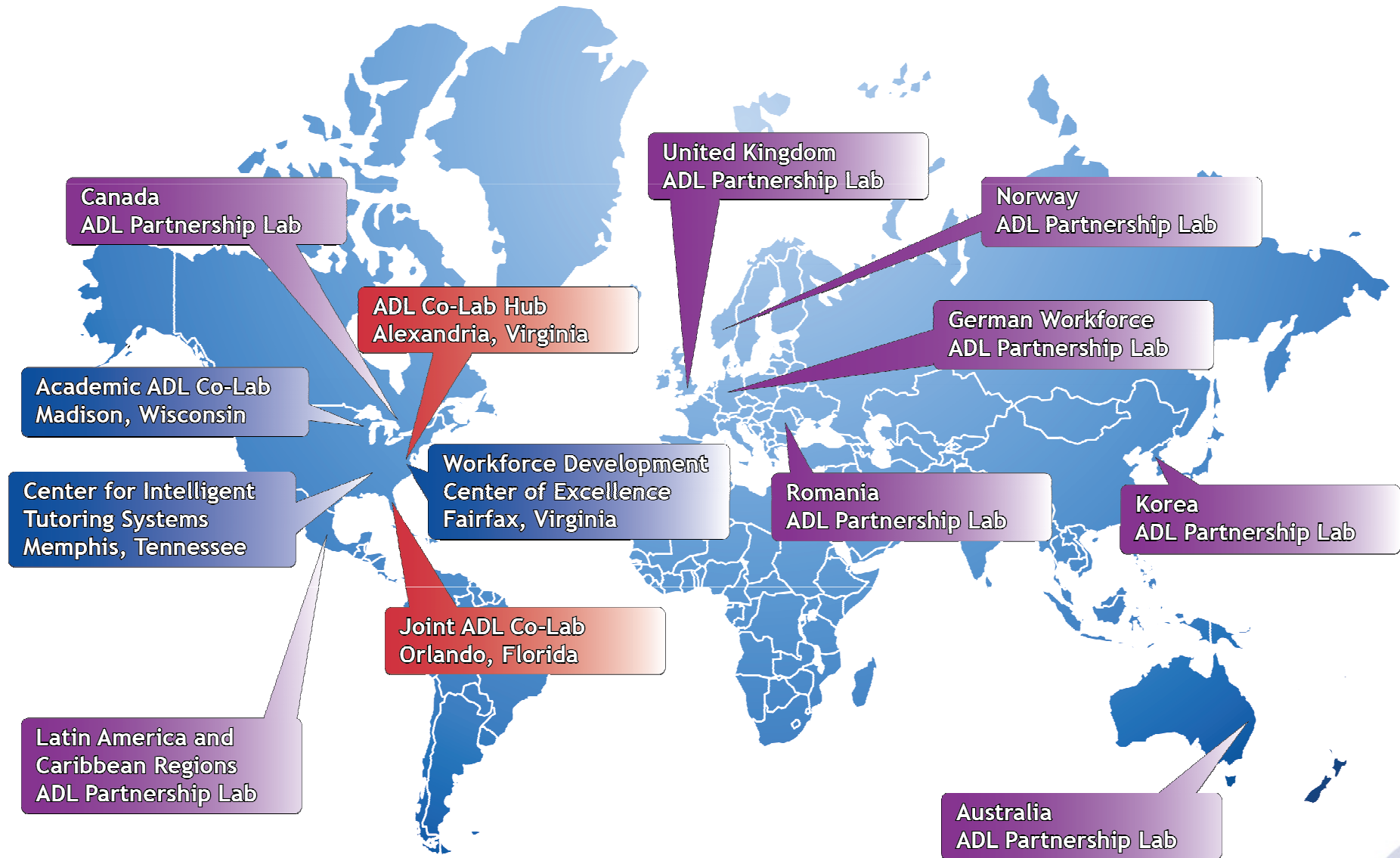


# ADL Vision

Provide access to the highest quality education and training, tailored to individual needs, delivered cost effectively, anywhere and anytime.



# ADL Labs & Centers



**1**

## Continuing Focus Areas

SCORM

Repositories and Registries

S1000D

**2**

## Collaboration

**3**

## Emerging Technology

Games

Virtual Worlds

Social Networking

Mobile



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## SCORM 1.1

**Content  
Aggregation  
Model:**  
Metadata +  
Binding

**Run Time  
Environment:**  
API +  
Data Model

## SCORM 1.2

**Content  
Aggregation Model:**  
Metadata + Binding;  
Adds: Content Packaging  
& Content Organization

**Run Time  
Environment:**  
API +  
Data Model  
(updated/fixed)

## SCORM “2004”

**Content  
Aggregation Model:**  
Metadata + Binding;  
Content Packaging &  
Content Organization  
(updated/fixed)

**Run Time  
Environment:**  
API +  
Data Model  
(updated/fixed)

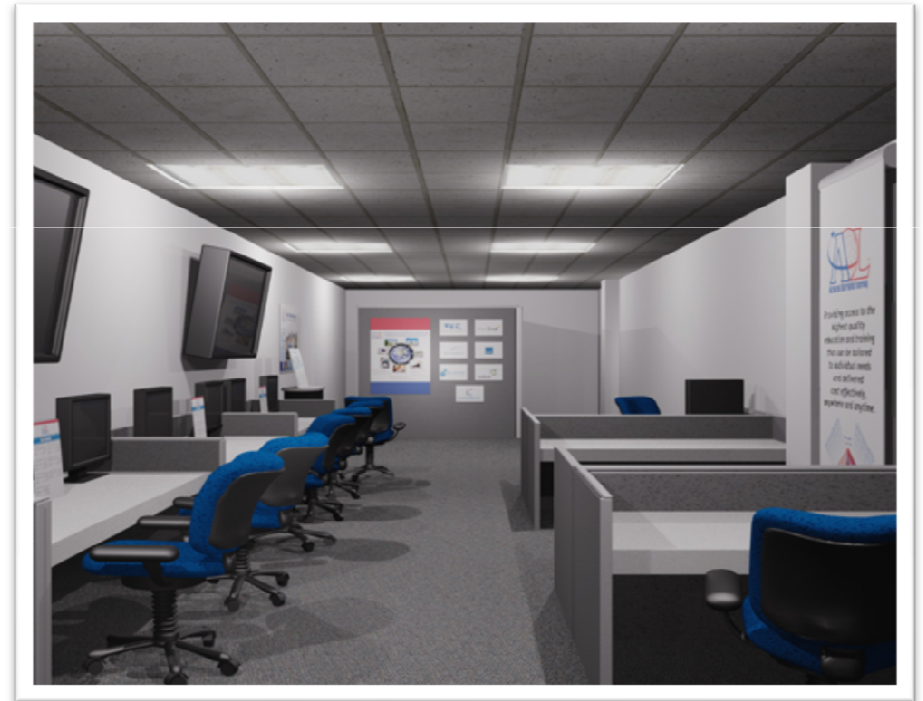
**CAM 1.3**

**RTE 1.3**

**Sequencing &  
Navigation:**  
Rules and Behaviors  
(new)

**S&N 1.3**


- SCORM Testbed
  - Learning Management Systems
  - Support content testing
  - Enable rapid troubleshooting
- SCORM Test Suite
  - Free download from [adlnet.gov](http://adlnet.gov)
- SCORM Helpdesk  
[scormhelpdesk@adlnet.gov](mailto:scormhelpdesk@adlnet.gov)

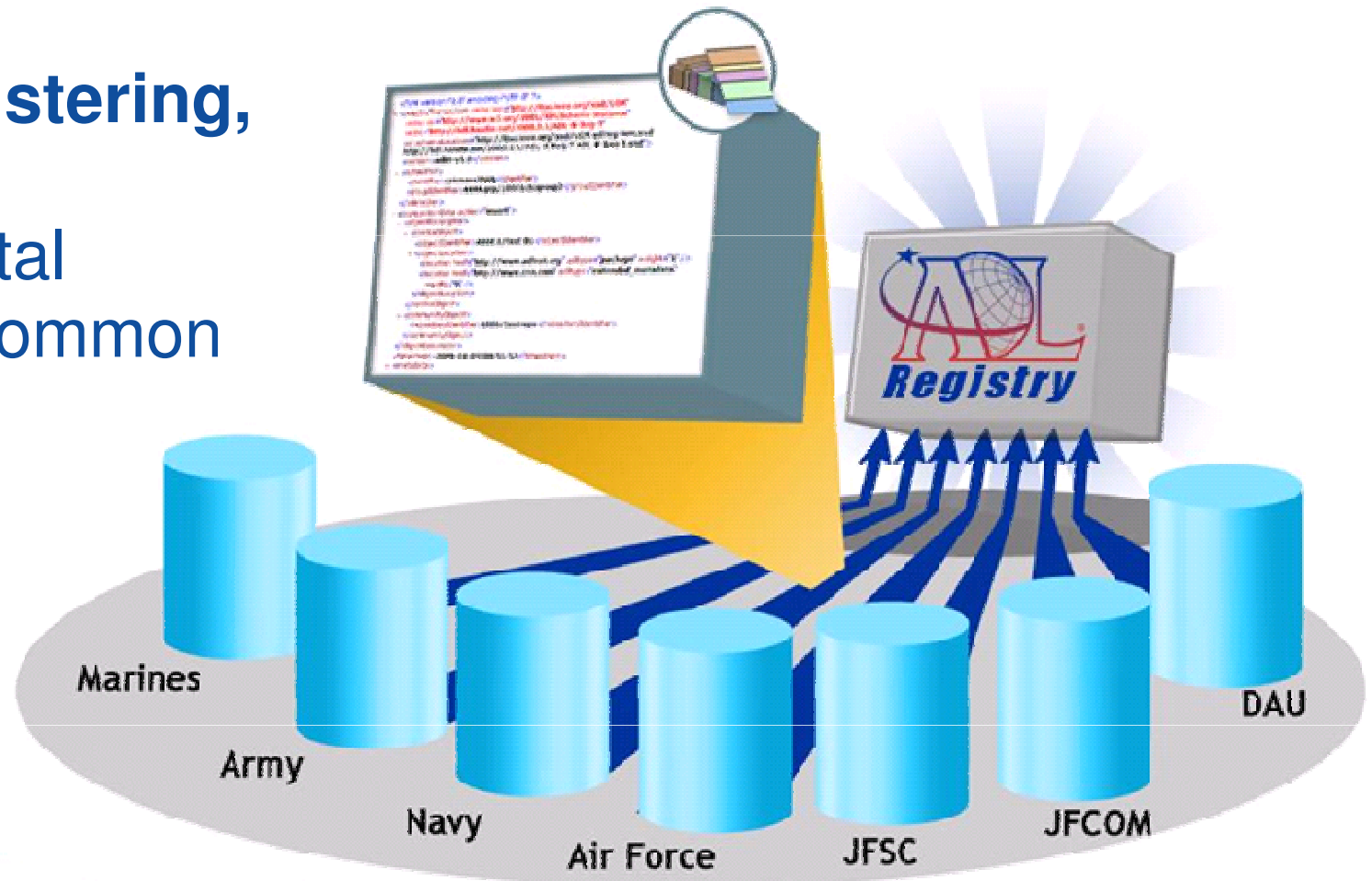


**Learning Technology Lab,  
Alexandria, VA**



A system for **registering**, **searching**, and **discovering** digital objects using a common set of metadata

-  - Content Repository
-  - Registry
-  - Community



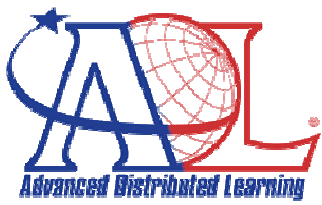
*If you build it, they will come...*  
*That's not entirely true.*

# Registry future directions

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- Review and update underlying technology
- Establishing a .mil registry
- Improve user experience
  - Simplify registration
  - Focus on community repositories
  - Include Web 2.0 features (Amazon-like)
  - Focus on Assets -- not just content packages
  - Provide user-friendly documentation





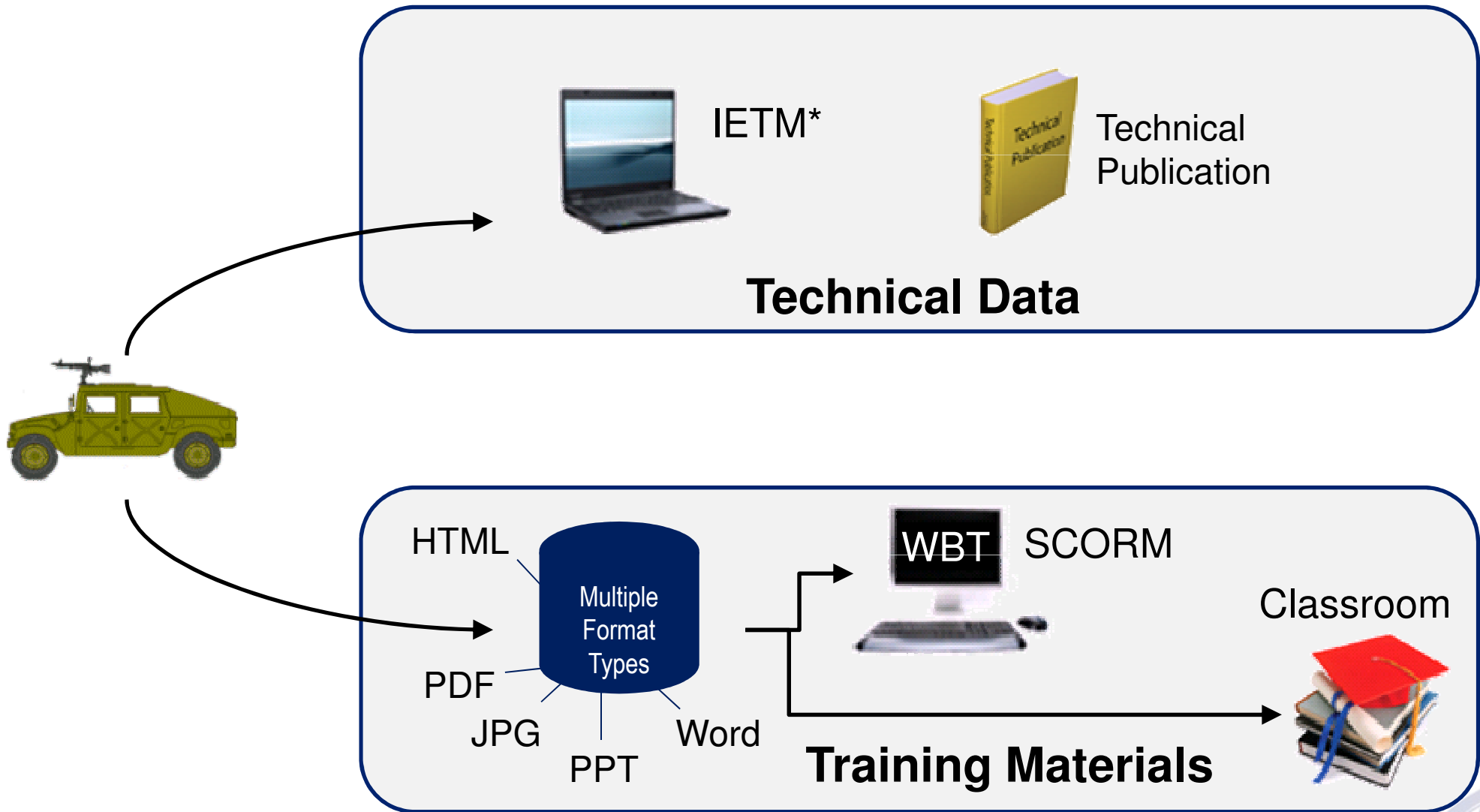
# S1000D and SCORM Harmonization

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- Enables acquisition strategy to buy content one time for reuse and management
- Naval Education and Training Command (NETC) began migrating to common source database on 8 March



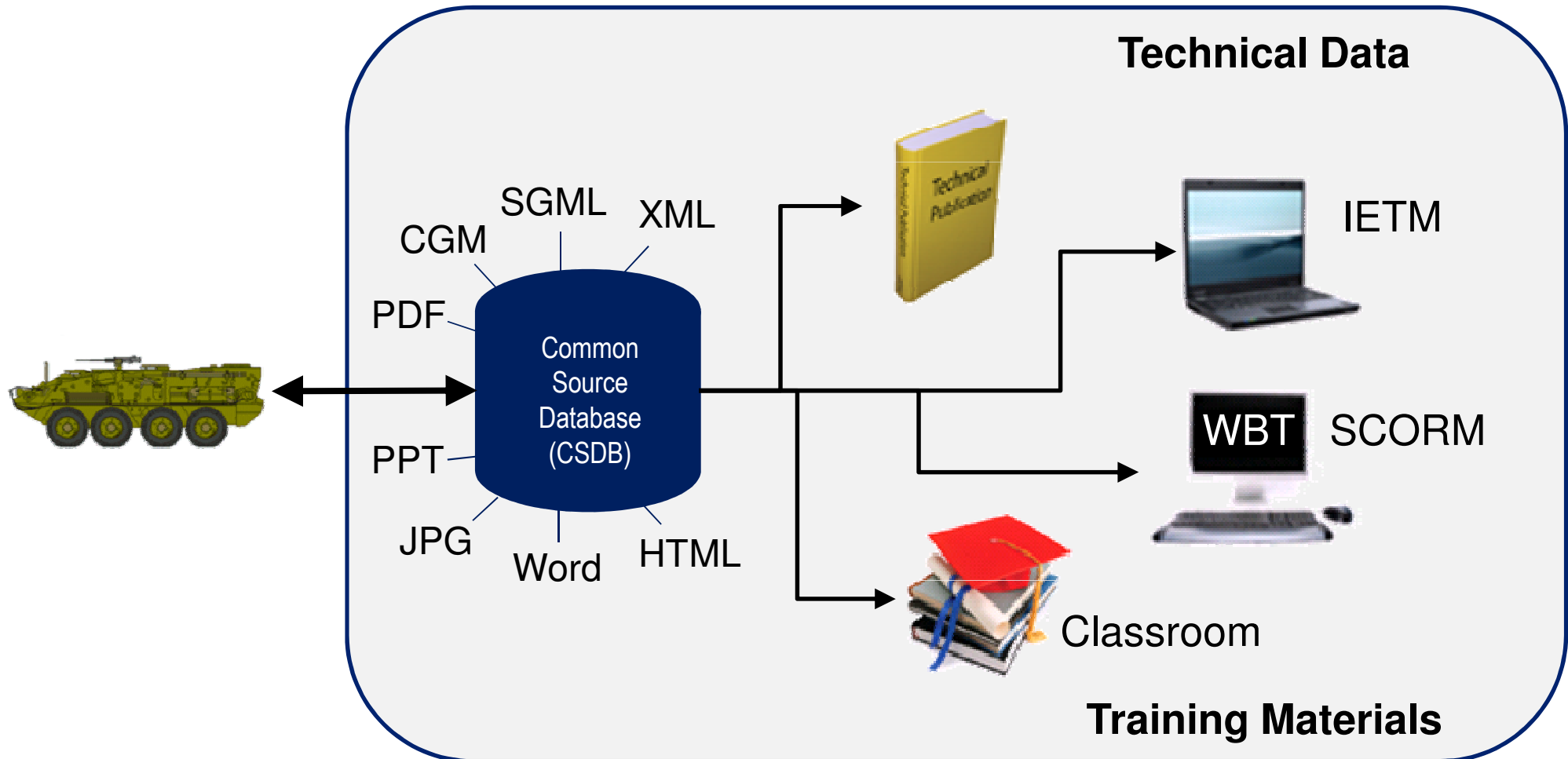
# Current State



\*Interactive Electronic Technical Manual



# Objective State



1

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## Defense ADL Action Team

- Serve as Service focal point for ADL practices and procedures
- Provide a forum for discussion and resolution of practical issues in ADL
- Promote collaboration
- Formulate Research and Technology Demonstrations to provide solutions to Service issues
- Provide Service metrics

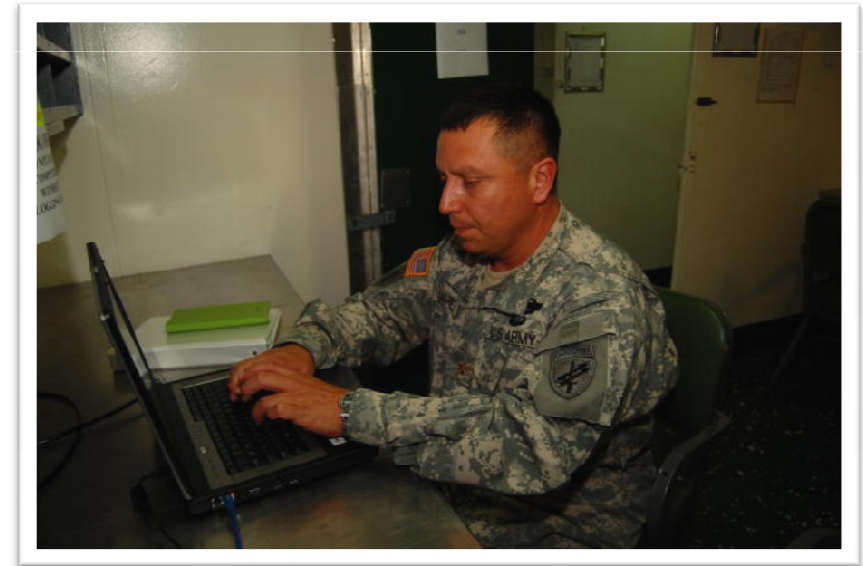
## Defense ADL (DADL) Working Group

- Forum for ADL DOD stakeholders to discuss the latest ADL tools, news, and to share lessons learned and best practices
- Meets every other month
- Over 70 active members

# Reaching Our Customers

We provide information in a variety of ways

- [www.ADLNet.gov](http://www.ADLNet.gov)
  - 17,420 Hits in January
- E-mail Newsletters
  - 4,114 Subscribers
- Tweeting
  - 432 Followers & growing
- LinkedIn
  - 421 Members & growing





# Learning Opportunities

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- Webinar Topics: 1-hour sessions each week
  - Introduction to SCORM
  - SCORM 2004 4<sup>th</sup> Edition Overview
  - Creating Reusable Content with SCORM 2004
  - Sequencing SCORM 2004 Content
  - Contributing to the ADL Registry Version 1.7
  - Federated Registry Architectures
  - Choosing Authoring Tools
  - Visual Design Principles for Reusable Learning Content
- For details, visit [www.ADLNet.gov](http://www.ADLNet.gov)





# ADL Help Desk

**Anytime**

[helpdesk@adlnet.gov](mailto:helpdesk@adlnet.gov)

or

**Online Office Hours**

Thursdays

1:00 - 3:00 PM EST

[www.adlnet.gov](http://www.adlnet.gov)



**Staff**

Instructional systems development (ISD)

Software engineering

Project management

Research and evaluation

**1**

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# Growth in new technologies

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## ■ Games

- Game industry revenues for 2008 and 2009 totaled \$41 billion

## ■ Virtual Worlds

- 1.5 million users have logged into SecondLife in the last 60 days

## ■ Social Networking

- More than 400 million Facebook users
- Directive 09-026, “Responsible and Effective Use of Internet-based Capabilities” signed February 25, 2010

## ■ Mobile

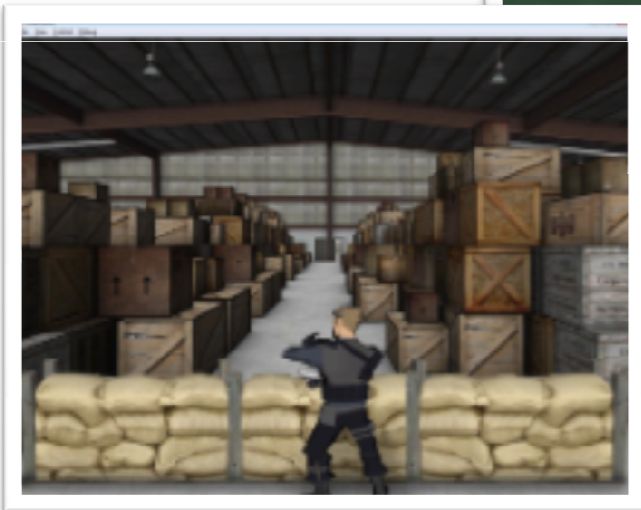
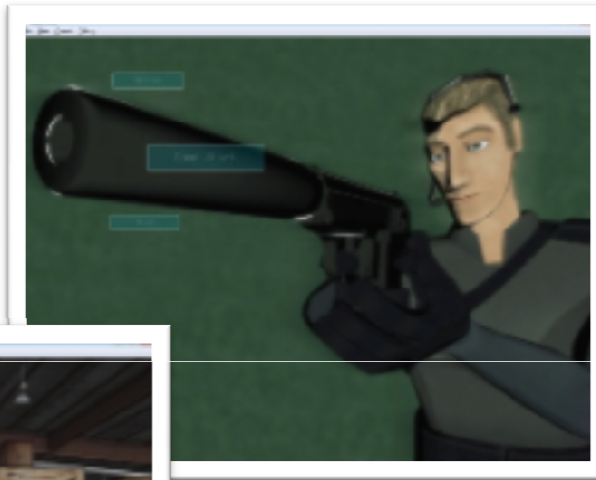
- Phones are outselling PC's 3:1
- Android and iPhone users spend ~80-90 min./day using apps



## Defense Acquisition University (DAU) Mini-Games

- Reinforce Core Competencies
- Single Learning Objectives

**Charge!**  
Pricing Rules



**Acquisition  
Proposition**  
Overall Acquisition Process

- Co-hosted the DAU virtual world Advanced Concepts Learning Technology Demonstration
  - New delivery method of existing acquisition course
  - 10 players, Orlando
  - 10 players, Alexandria
- Co-sponsoring with US Joint Forces Command (JFCOM) a web-delivered capability



- ADL has space within MiLands
- JADL hosts the Team Orlando Virtual Worlds Governance Board
- In partnership with Navy, experimenting with SecondLife behind the firewall







# ADL Help Desk in SecondLife



**Thursdays 1:00 - 3:00 PM EST**

- Virtual World Testbed
  - The test bed is comprised of functioning virtual worlds allowing us to test and compare capabilities for Department of Defense (DoD)
- Game Testbed
  - The test bed contains many of the games and supporting technologies used by the DoD today



**Immersive Learning  
Technology Lab,  
Orlando, FL**

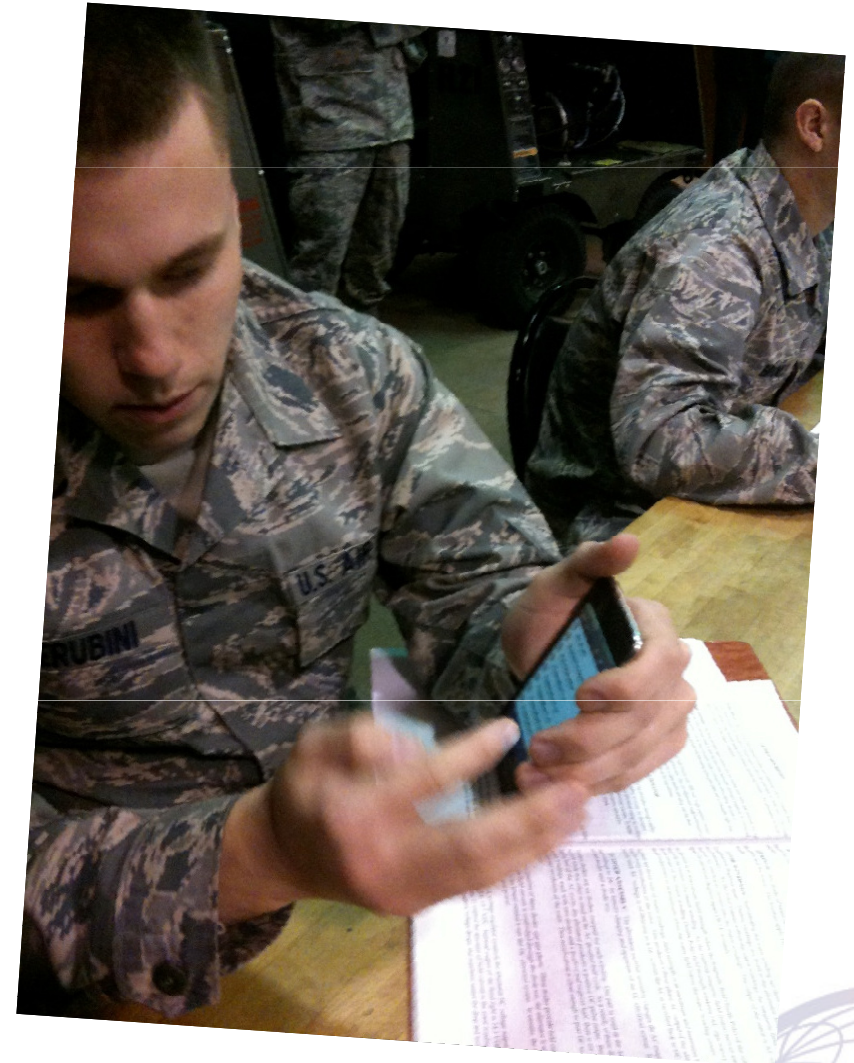
# Portability of content to mobile

- Targeting iPhone and Android platforms currently
- Exploring SCORM integration to mobile gaming content



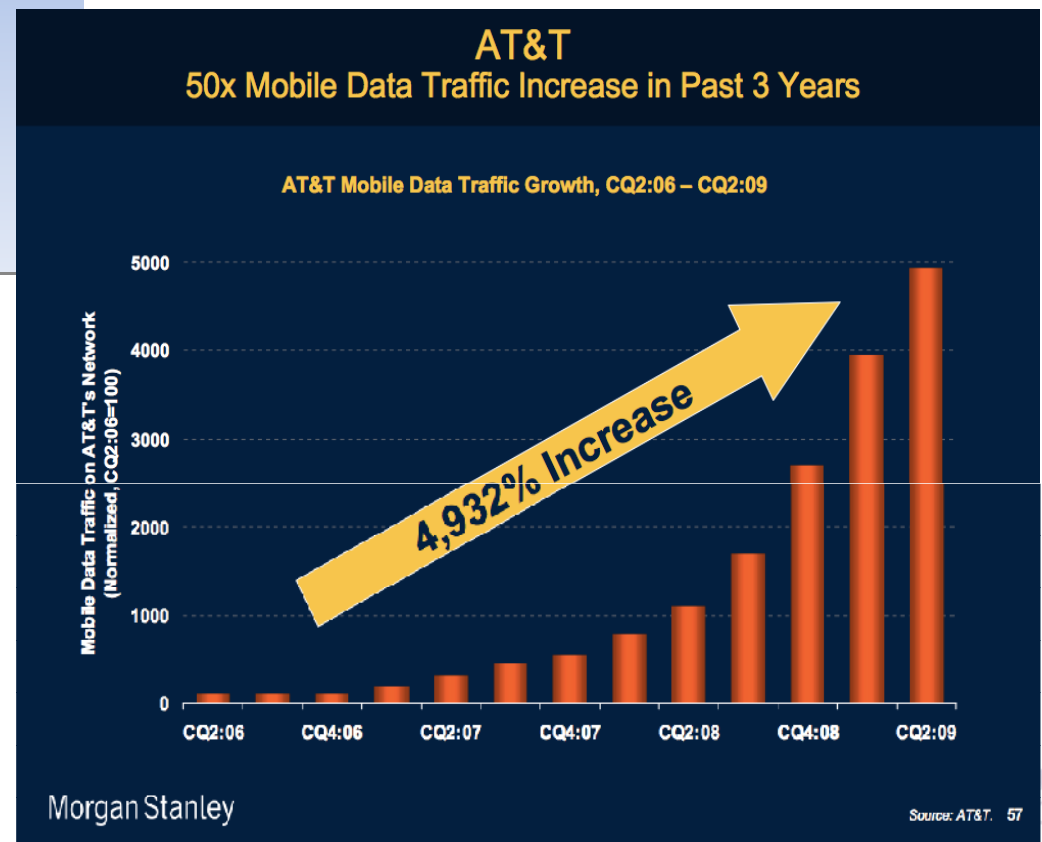
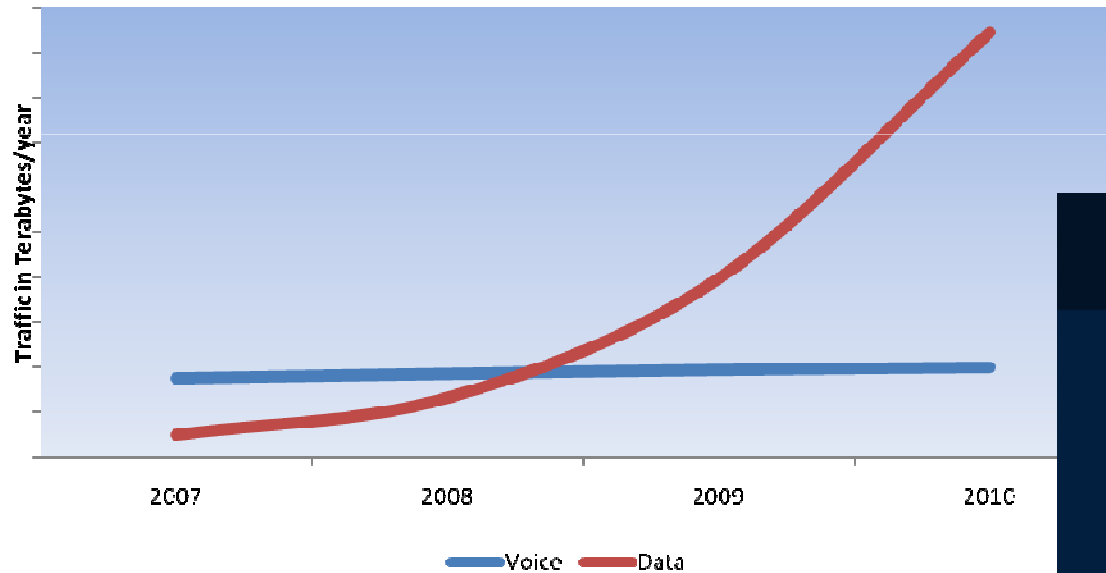


- Tracking initiatives and products
- Gathering documents and resources
- Air Force Education & Training Command Workshop and Consulting
- Office of Naval Research (ONR) grants
- Conferences and workshops
- DAU learning games



# Infrastructure challenges

## Mobile Network Traffic (US)



# Knowledge at your fingertips



# Five moments of learning needs

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- When learning for the first time
- When wanting to learn more
- When trying to remember
- When things change
- When something goes wrong



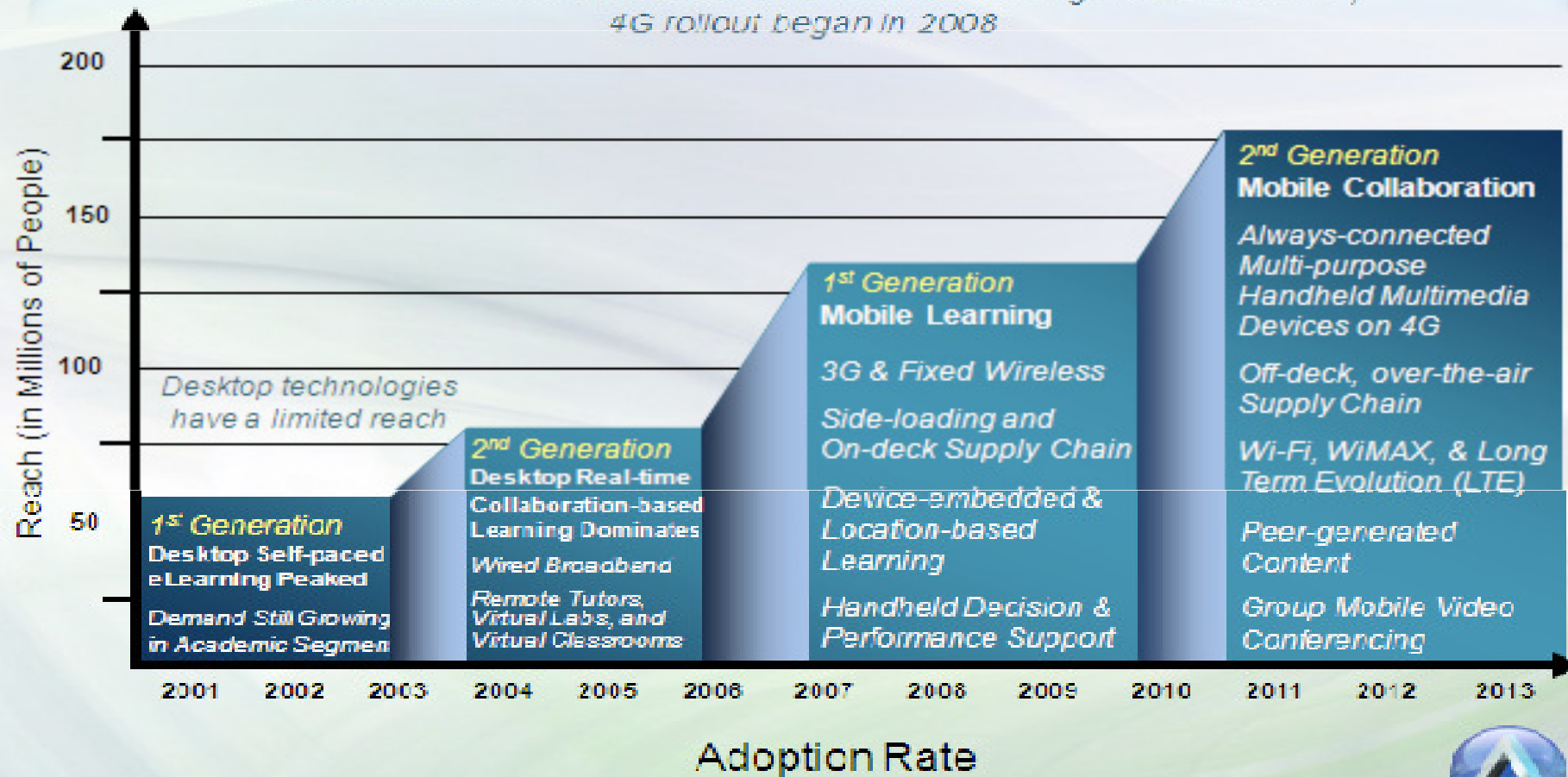
*Dr. Conrad Gottfredson*



# How do we leverage the Future?

## US Learning Technology Trends: Reach and Adoption Across All Buyer Segments

National rollout of 3G & fixed wireless broadband began in 2005-2006,  
4G rollout began in 2008



# It is much more than just courses

## Mobile Learning Opportunities



# How do we achieve?







Discover international mobile activities

Develop standards

Identify research areas needed to achieve potential

Establish mlearning international collaborations

# Questions or Comments?

**ImplementationFest 2010**  
**10-12 August**  
**Rosen Centre, Orlando, FL**

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